

## Request For Information

Request information for consulting to develop clean room at ERI New premesis cairo - Egypt

According to article 12 of law No 182 of 2018 For contracts concluded by public authorities

Commission Setup

According to a Commission decision clean room number 22 dated 11/2/2019

In collaboration with owner consultative military technical college

## طلب المعلومات

طلب معلومات لتقديم استشارات لتطوير الغرفة النظيفة بمقر المعهد الجديد بالنز هة الجديدة - القاهرة

طبقا للمادة رقم ١٢ من القانون رقم ١٨٢ لسنة ٢٠١٨ الخاص بالتعاقدات التي تبرمها الجهات العامة

لجنة الاعداد طبقا لقرار تشكيل لجنة الغرفة النظيفة رقم ٢٢ بتاريخ

وبالتعاون مع استشاري المالك الكلية الفنية العسكرية

Head of Institute

Hestran Eldel

Prof. Hesham Eldeeb

ا.د/ هشام الديب





#### **Contents** 1. مقدمة 1. Introduction 2 2. خلفية الموضوع 2. Background 4 3. نطاق طلب المعلومات 3. RFI Scope 8 4. ملاحظات هامة 4. Important Notes 8 ٨ 5. المتطلبات الرئيسية لطلب المعلومات 9 5. RFI categories and questions 9 6. بيانات عن الشركة المتقدمة 6. RFI Response Guidelines 14 12 7. الجدول الزمني 7. Time table ۱۳ 13 8. مصفوفة محتويات العرض 8. Compliance Matrix 1 2 14



Notes:

All sessions and site survey will be held at ERI New premesis - Taha Hussein axis -Cairo - next to Cairo International Airport

جميع الجلسات والمعاينات سوف تنعقد بمقر المعهد الجديد بالنز هة الجديدة -محور طه حسين -القاهرة \_ بحوار مطار القاهرة الدولي

#### 1. General conditions

- This request for information is subject to Law No. 182 of 2018 on contracts concluded by the public bodies and the executive regulation of Law No. 89 of 1998 concerning the organization of tenders and auctions, in addition to the text of the request for information..
- Companies to apply must register their على الشركات المتقدمة تسجيل بياناتها او تحديثها data or update them as soon as they are modified on the public contracting portal website in accordance with the provisions of Article (85) of Law No. 182 of 2018 URL: www.etenders.gov.eg The registration will be as non-supplier

#### 1- شروط عامة

- يخضع طلب الحصول على المعلومات للقانون رقم 182 لسنة 2018 الخاص بالتعاقدات التي تبرمها الجهات العامة واللائحة التنفيذية لقانون رقم 89 لسنة 1998 الخاص بتنظيم المناقصات والمزايدات مكملا لما لم يرد به نص طلب المعلو مات.
- حال تعديلها على موقع بوابة التعاقدات العامة وفقا لاحكام المادة (85) من القانون رقم 182 و عنو انها 2018 www.etenders.gov.eg على ان يتم التسجيل ك ( non supplier )

#### 2. The date of submission of the reply to the request for information

The deadline for submission of the reply to the request for information at 12:00 pm on Tuesday, 27/8/2019 at ERI New premesis El-Nozha Elgadida area - cairo -Taha Hussein axis - Cairo next to Cairo International Airport

# 2- تاريخ تقديم الرد على طلب الحصول على معلومات

أخر موعد لتقديم الرد على طلب الحصول على المعلومات الساعة 12 ظهرا يوم الثلاثاء الموافق 2019/8/27 بمقر المعهد الجديد بالنز هة الجديدة محور طه حسین - القاهرة - بجوار مطار القاهرة الدولي



#### The reply should include the following documents:

يرفق مع الرد الأوراق التالية:

- Copy of the registration in the commercial register the or corresponding thereof
- صورة القيد بالسجل التجاري او المقابل لها.
- A copy of the tax card showing the last tax return or the equivalent thereof.
- صورة البطاقة الضريبية موضحا بها آخر إقرار ضريبي او المقابل لها.
- Certified track record of similar Previous work for the company and the electronic pages for this work also the website for the company
- وسابقة الإعمال الخاصية بالشركة لإعمال مثبلة والصفحات الالكترونية المتضمنة لهذه الاعمال و كذلك الموقع الالكتر وني للشركة.
- The company representative could have بفضل ترشيح مندوب للشركة المتقدمة لحضور a certificated attendance letter, in جلسات الاستفسارات ويرفق صورة بطاقة addition to the personal ID or any equivelant.

تحقيق الشخصية الخاصة به أو المقابل لها.

Contact us:

Email: cr@eri.sci.eg Clean room link:

http://www.eri.sci.eg/CleanRoom RFI

البريد الالكتروني: cr@eri.sci.eg

ر ابط الغرفة النظيفة:

http://www.eri.sci.eg/CleanRoom RFI



# Request for Information For

# Establishing A Clean Room Facility for Semi-Industrial Electronics Fabrication

# Electronics Research Institute (ERI) – Ministry of Higher Education and Scientific Research Cairo, Egypt

Responses Due: 27 August 2019

What's an RFI?

A Request for Information (RFI) is an opportunity for you to share your ideas to help the ERI shape the outcome of the project.

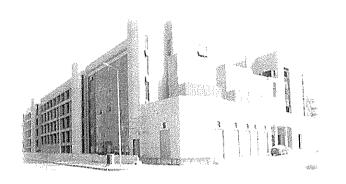
#### What's Inside?

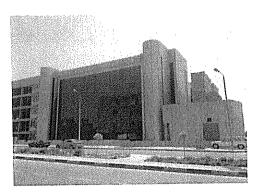
- A. Introduction
- B. Background
- C. RFI Scope
- D. Disclaimer and Important Notes
- E. RFI Categories and Questions
- F. Request for Information Response Guidelines



#### A. Introduction

The Electronics Research Institute (ERI), established on 1989, is one of the specialized institutes affiliated to the Ministry of Scientific Research. ERI considered an experience house in conducting studies and research in fields of electronics engineering, communication, computer and systems, informatics, new and renewable energy.





ERI is composed of seven departments: Computer and Systems Department, Informatics Department, Power Electronics and Energy Conversion Department, Microelectronics Department, Photovoltaic Department, Microwave Engineering Department, and Micro-strip Department. In addition, it has two specialized central laboratories: the nanotechnology applications lab, and the cloud computing and high-performance computers lab. The institute has more than two hundred and eighty-eight researcher, making it one of the largest research institutes in Egypt in the field of electronics engineering.

An area of seventeen thousand square meter was allocated to constructing the new premises of the institute at the beginning of Cairo-Ismailia Desert Road (Al-Nozha Al-Jadida district). The total requirements for various laboratories and services from the allocated area reached about fifty-five thousand square meters, including a clean room building represents the nucleus of a national center for the



rising edge technologies, and other specialized laboratories such as: laboratory of antenna testing, robot's laboratory, printed card laboratory, power electronics and microelectronics laboratories, microstrip and radio frequency-operated communication circuits laboratories, etc.

The new premises (Fig. 1) include a clean room building with an area of about 600 square meters. The dedicated building for the clean room is a 3-storey building and its main structure is already finished.

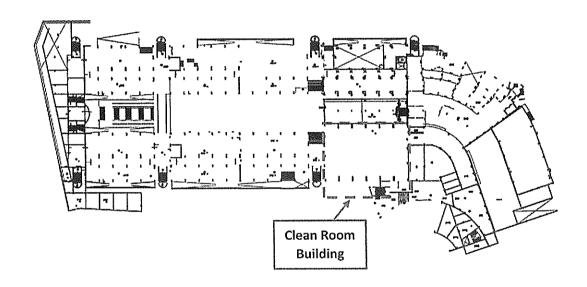


Fig. 1 The ERI new premises structure

On April 5, 2019, ERI has signed an agreement with Egyptian Military Technical Collage (MTC) as the owner consultant for establishing the first semi-industrial clean room facility in the new location of ERI in El-Nozha Elgadida area.



#### MTC at A Glance

Whereas the Egyptian Military Technical College is considered one of the distinguished scientific research centers of the Armed Forces. MTC is specialized in the fields of military sciences and technology. As a reference in the military technical applications, MTC oversees, among others:

- a. Graduation of MTC engineering officers of scientific, practical and organizational capabilities to undertake technical and engineering missions. Qualification of distinguished officers to conduct scientific research innovation in diverse engineering and technological fields to help the Armed Forces modernize the armament systems and support critical and advanced technologies
- b. Conducting academic and applied researches in relation to fields of studies and researches in accordance with the general strategies of the Armed Forces technical researches.
- c. Conducting new studies that fulfil the needs of the Armed Forces. Proposing new engineering and technological solutions that promote the capabilities of the military equipment and improve their tactical and technical utilization. Preparation of qualified officers who can offer technical consultations to Armed Forces authorities.

#### B. Background

The dedicated building for the clean room is a 3-storey building (basement, first and second) with  $600 \text{ m}^2$  area for each floor, with a total area of  $1800 \text{ m}^2$ .

Basement celling height 3.60 m (Fig.2), first floor 3.60 m (Fig.3), and second floor 7.00m (Fig.4). More details about the building structure can be available during site survey.



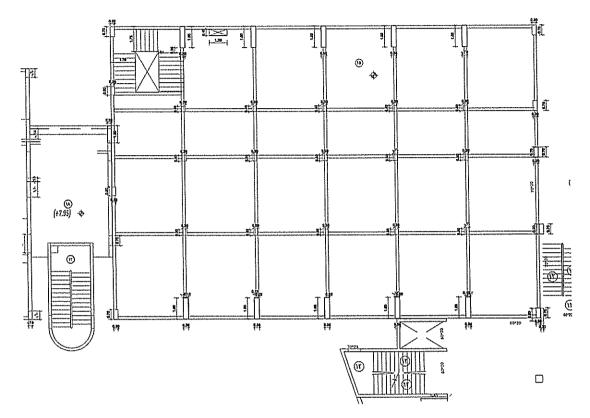


Fig.2 Basement



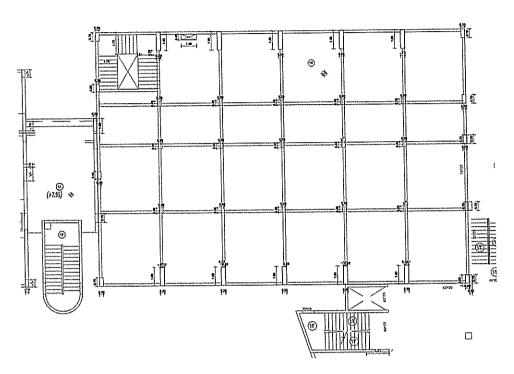


Fig.3 First Floor



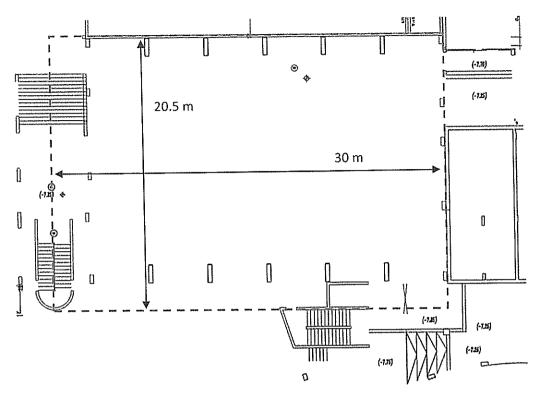
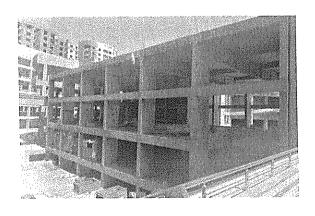
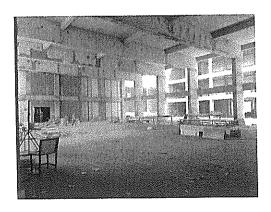


Fig. 4 Second Floor

A real-life photo for the dedicated clean room building is shown in the following figures.











#### C. RFI Scope

The purpose of this RFI is to solicit feedback from industry, academia, research laboratories, and other agencies on specific issues and topics related to the establishment of clean room facility for semi-industrial electronics fabrication and research through specific Topical/Technical Focus Areas described herein.

ERI seeks information through this RFI to understand cross-cutting as well as specific manufacturing challenges that if addressed could provide the underlying motivation for the formation of electronics fabrication facility.

Participants are encouraged to hand-in technical and financial proposals for the disclosed requirements within this RFI.

## D. Disclaimer and Important Notes

This is a Request for Information (RFI) only. There is a Request for Quotation (RFQ) that will be issued based on the results of this RFI.

Responding to this RFI does not provide any advantage or disadvantage to potential applicants if ERI chooses to issue an RFQ regarding the subject matter.



Respondents are advised that ERI is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind ERI to any further actions related to this topic.

ERI will not provide reimbursement for information provided under this RFI.

Site survey is available upon prior arrangement.

#### E. RFI Categories and Questions

We request information on the following topics:

- 1. Main design requirements for Buildings Dedicated to Establishing Semi-Industrial and Research Clean Rooms.
- 2. Rising Edge Technology in the Market for the Upcoming 10 Years Based on Effective Global Market Research.
- 3. Estimated Financial required investment for each rising technology.
- 4. Estimated Running (Operations and management) Cost.
- 5. Main special management aspects to be included in planning similar targeted semi-industrial projects.

In addition, a single general topic allows broader input on topics not specifically covered. The specific topic areas are described below.

- 1. Main design requirements for Buildings Dedicated to Establishing Semi-Industrial and Research Clean Rooms.
  - 1.1. Construction and architecture design constrain.
  - 1.2. Hydro, Electrical and Electromechanical design constrains.

9/15



- 1.3. Sewage system planning specially when using hazardous materials and fume extracting management.
- 1.4.Relation between designated clean room building and other neighboring facility buildings.
- 1.5.Design requirements and constrains in case of multi-story clean rooms and designated area planning.
- 1.6.Main design aspects for establishing a separate facility for waste material filtering management.
- 1.7. General environmental regulations and constrains for clean room facilities.

# 2. Rising Edge Technology in the Market for the Upcoming 10 Years Based on Effective Global Market Research.

- 2.1. Methodologies and standard guidelines used to prepare feasibility study for marketing and economic return on investment (references to be included).
- 2.2. Identification of Disruptive Technologies.
- 2.3. Research on Emerging Market Trends.
- 2.4. Research on market demanded products components in the next 10 years in electronics industries.
- 2.5. Quantification of Market Size and Opportunities.
- 2.6. Market Participant and Competitive Analysis.
- 2.7. Provide market data and segmentation.
- 2.8. Identifying new applications and markets.
- 2.9. Propose marketing strategies and action plans.
- 2.10. Identifying and managing future trends and challenges.
- 2.11. Firm basis creation for marketing strategy.

10/15



- 2.12. Market share, sizing and forecasting.
- 2.13. Market entry and development.
- 2.14. Defining consumer preferences.
- 2.15. Market drivers and dynamics, both business and technical.

#### 3. Estimated Financial required investment for each rising technology.

- 3.1. Main basis for decision making related to direct investment in similar semi-industrial facility establishment.
- 3.2. Financial and Cost Structure Analysis; Supply Chain Identification.
- 3.3. Analysis of technical areas and definition of technology strategies Process cost analysis and cost comparisons.
- 3.4. Pricing and sales guidelines.
- 3.5. Suggestions on turn overs from self-producing a certain product and/or leasing the facility fully equipped.
- 3.6. Suggestions on short and long-term return of investment (RoI) from selected market demanded products/components.

#### 4. Estimated Running (Operations and management) Cost.

- 4.1. Main points governing manipulation of daily running cost.
- 4.2. Aspects of assigning total annual running cost in case of self-maintaining procedures.
- 4.3. Roles governing running cost margin added to services provided to customers using the established semi-industrial facility.

# 5. Main special management aspects to be included in planning similar targeted semi-industrial projects

5.1. Information regarding any special clearances for used equipment's / software .... etc.

11/15



- 5.2. End user certificates related to any certain or special process / design software / equipment...etc.
- 5.3. Differentiating and Evolutionary Opportunities and Risks.
- 5.4. IP and Patent Analysis.
- 5.5. Inbound and Outbound Licensing Support.
- 5.6. Development of product and technology roadmaps.
- 5.7. Suggestions on developing optimal product/services bundles.
- 5.8. Near-term, tactical to long-term, strategic challenges.
- 5.9. Prioritization, milestone development & implementation.
- 5.10. The opportunities of joint venture the facility with a giant/a pin pointed global market share holder in a well-known technology and/or rising edge technology with an estimated time frame to do so.

## F. Request for Information Response Guidelines

Responses to this RFI must be submitted electronically to cr@eri.sci.eg with a subject line "Response to RFI" no later than 5:00pm (GMT) on 20 August 2019. Any late responses will not be reviewed.

Responses must be provided as a Microsoft Word document (.docx or .doc), 12-point font, 1-inch margins as an attachment to an email. It is recommended that attachments with file sizes exceeding 20MB be compressed (i.e., zipped) to ensure message delivery. Submission of existing commercial documentation and product literature is NOT an acceptable response. Only electronic responses will be accepted.



Respondents are requested to provide the following information at the start of their response to this RFI:

- i. Company / institution name.
- ii. Company / institution contact.
- iii. Contact's address, phone number, and e-mail address.
- iv. Relevant Industry; university, non-profit research institution, state or local government, or other (please identify).
- v. Experience and References; Proposals should include a list of 3-5 references for similar projects that your firm has completed.
- vi. Complete and full resume of the company along with documented expertise in the field. Certificates of successfully completed projects/consultancy in similar / related projects is required.
- vii. Compliance matrix should be filled out and provided with the RFI response.

#### **RFI** Timetable

	Item	Da	te	Notes	
	Item	From	То		
1	Site Survey for Applicants	25/6/2019	2/7/2019		
2	Receiving of Applicants Inquires	2/7/2019	9/7/2019	Hard copy /Electronic	
3	ERI reply session for applicant's inquires and related discussion	9/7/2019	16/7/2019	To be confirmed	
4	Final date to receive RFI proposals	27/8/	2019	Hard and electronic copies	



## Compliance Matrix

		Compliance					
Item	Title		No	Page # in submission document	Comments		
1.	Main design requirements for Buildings Dedicated to Establishing Semi-Industrial						
	Clean Rooms.			·			
1.1	Construction and architecture design constrain.						
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1.3	Sewage system planning specially when using hazardous materials and fume management.						
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1.5	Design requirements and constrains in case of multi-story clean rooms.						
1.6	Main design aspects for establishing a separate facility for waste material filtering management.						
1.7	General environmental regulations and constrains for clean room facilities.						
2.	2. Rising Edge Technology in the Market for the Upcoming 10 Years Based on Effective Global Market Research.						
2.1	Methodologies and standard guidelines used to prepare feasibility study for marketing and economic return on investment (references to be included).						
2.2	Identification of Disruptive Technologies.						
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2.7	Provide market data and segmentation.						
2.8	Identifying new applications and markets.		-				
2.9	Propose marketing strategies and action plans.	1					
2.10	Identifying and managing future trends and challenges.						
2.11	Firm basis creation for marketing strategy.	-	_				
2.12	Market share, sizing and forecasting.	-					
2.13	Market entry and development.						
2.14	Defining consumer preferences.						
	Market drivers and dynamics, both business and	_					

Nozha Tel: (+202) 26252779, Dokki Tel: (+202) 33369738 Email: <u>info@eri.sci.eg</u> Website: <u>www.eri.sci.eg</u> الرقم البريدى: 11843 فاكس : 33369738 (202)+ ت النزمة : 2625779 (202+) الدقى : 33369738 (202+)



	technical.				
3.	Estimated Financial required investment for ea	ch ris	ing te	chnology.	,
3.1	Main basis for decision making related to direct investment in similar semi-industrial facility establishment.			SV.	
3.2	Financial and Cost Structure Analysis; Supply Chain Identification.				
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4.2	Aspects of assigning total annual running cost in case of self-maintaining procedures.				
4.3	Roles governing running cost margin added to services provided to customers using the established semi-industrial facility.				
5.	Main special management aspects to be included industrial projects	led in	plann	ing simila	r targeted semi-
5.1	Information regarding any special clearances for used equipment's / software etc.				
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